

Claims:

1. A refrigerant composition comprising:
 - (a) about 20-60 weight percent R-134a;
 - 5 (b) about 40-70 weight percent R-125;
 - (c) about 1-10 weight percent R-32; and
 - (d) about 1-8 weight percent of a hydrocarbon component, the hydrocarbon component comprising one or more hydrocarbons selected from Group A and one or more hydrocarbons selected from Group B, wherein Group A comprises hydrocarbon refrigerants
10 having a boiling point lower than the boiling point of R-134a and Group B comprises hydrocarbon refrigerants having a boiling point higher than the boiling point of R-134a.
2. The composition of claim 1, comprising 30-50 weight percent R-134a, 45-60 weight percent R-125, 2-6 weight percent R-32, and 1-5 weight percent of said
15 hydrocarbon component, wherein the hydrocarbons of Group A comprise one or more hydrocarbons selected from the group consisting of R-290, R-1270, R-170 and R-50, and the hydrocarbons of Group B comprise one or more hydrocarbons selected from the group consisting of R-600a, R-600 and R-601.
- 20 3. The composition of claim 1, comprising 45-50 weight percent R-134a, 45-50 weight percent R-125, 3-5 weight percent R-32, and 1-4 weight percent of the hydrocarbon component, wherein the Group A hydrocarbon comprises R-290 and the Group B hydrocarbon comprises R-600a.
- 25 4. The composition of claim 1, comprising 1-2 weight percent R-290 and 1-2 weight percent R-600a.
5. The composition of claim 4, comprising about 1.5 weight percent R-290 and about 1.5 weight percent R-600a.
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6. A refrigerant composition comprising:
 - (a) about 20-60 weight percent R-134a;
 - (b) about 40-70 weight percent R-125;

(c) about 1-8 weight percent of a hydrocarbon component, the hydrocarbon component comprising one or more hydrocarbons selected from Group A and one or more hydrocarbons selected from Group B, wherein Group A comprises hydrocarbon refrigerants having a boiling point lower than the boiling point of R-134a and Group B comprises hydrocarbon refrigerants having a boiling point higher than the boiling point of R-134a.

7. The composition of claim 6, comprising 30-50 weight percent R-134a, 45-60 weight percent R-125, and 1-5 weight percent of said hydrocarbon component, wherein the hydrocarbons of Group A comprise one or more hydrocarbons selected from the group consisting of R-290, R-1270, R-170 and R-50, and the hydrocarbons of Group B comprise one or more hydrocarbons selected from the group consisting of R-600a, R-600 and R-601.

8. The composition of claim 6, comprising 40-50 weight percent R-134a, 50-55 weight percent R-125, and 1-4 weight percent of the hydrocarbon component, wherein the Group A hydrocarbon comprises R-290 and the Group B hydrocarbon comprises R-600a.

9. The composition of claim 6, comprising 1-2 weight percent R-290 and 1-2 weight percent R-600a.

10. The composition of claim 9, comprising about 1.5 weight percent R-290 and about 1.5 weight percent R-600a.

11. A method for producing refrigeration in a refrigeration system comprising employing as a refrigerant a composition comprising about 20-60 weight percent R-134a; about 40-70 weight percent R-125; about 1-10 weight percent R-32; and about 1-8 weight percent of a hydrocarbon component, the hydrocarbon component comprising one or more hydrocarbons selected from Group A and one or more hydrocarbons selected from Group B, wherein Group A comprises hydrocarbon refrigerants having a boiling point lower than the boiling point of R-134a and Group B comprises hydrocarbon refrigerants having a boiling point higher than the boiling point of R-134a.

12. The method of claim 11, wherein the refrigerant composition comprises 30-50 weight percent R-134a, 45-60 weight percent R-125, 2-6 weight percent R-32, and 1-5 weight percent of said hydrocarbon component, wherein the hydrocarbons of Group A

comprise one or more hydrocarbons selected from the group consisting of R-290, R-1270, R-170 and R-50, and the hydrocarbons of Group B comprise one or more hydrocarbons selected from the group consisting of R-600a, R-600 and R-601.

5 13. The method of claim 11, wherein the refrigerant composition comprises 45-50 weight percent R-134a, 45-50 weight percent R-125, 3-5 weight percent R-32, and 1-4 weight percent of the hydrocarbon component, wherein the Group A hydrocarbon comprises R-290 and the Group B hydrocarbon comprises R-600a.

10 14. The method of claim 11, wherein the refrigerant composition comprises 1-2 weight percent R-290 and 1-2 weight percent R-600a.

 15. The method of claim 14, wherein the refrigerant composition comprises about 1.5 weight percent R-290 and about 1.5 weight percent R-600a.

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 16. A method for producing refrigeration in a refrigeration system comprising employing as a refrigerant a composition comprising about 20-60 weight percent R-134a; about 40-70 weight percent R-125; and about 1-8 weight percent of a hydrocarbon component, the hydrocarbon component comprising one or more hydrocarbons selected
20 from Group A and one or more hydrocarbons selected from Group B, wherein Group A comprises hydrocarbon refrigerants having a boiling point lower than the boiling point of R-134a and Group B comprises hydrocarbon refrigerants having a boiling point higher than the boiling point of R-134a.

25 17. The method of claim 16, wherein the refrigerant composition comprises 30-50 weight percent R-134a, 45-60 weight percent R-125, and 1-5 weight percent of said hydrocarbon component, wherein the hydrocarbons of Group A comprise one or more hydrocarbons selected from the group consisting of R-290, R-1270, R-170 and R-50, and the hydrocarbons of Group B comprise one or more hydrocarbons selected from the group
30 consisting of R-600a, R-600 and R-601.

 18. The method of claim 16, wherein the refrigerant composition comprises 40-50 weight percent R-134a, 50-55 weight percent R-125, and 1-4 weight percent of the

hydrocarbon component, wherein the Group A hydrocarbon comprises R-290 and the Group B hydrocarbon comprises R-600a.

19. The composition of claim 16, wherein the refrigerant composition comprises
5 1-2 weight percent R-290 and 1-2 weight percent R-600a.

20. The method of claim 19, wherein the refrigerant composition comprises about 1.5 weight percent R-290 and about 1.5 weight percent R-600a.